

PULLMAN CAR & MANUFACTURING CORPORATION

The Pullman Company, Manufacturing Department

GENERAL SPECIFICATIONS FOR

TWO (2) ASSISTANT GENERAL MANAGERS CARS

9810

FOR ACCOUNT OF

ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY

CORRECTED TO AGREE WITH CARS AS BUILT

LOT 6113 Placed 6-8-27 Called 3-31-28
ISSUED REISSUED

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1. FLOOR PLAN: Railway plan 23-C-1482-B. Pullman plan #7146.

2. RAILWAY SPECIFICATIONS: BODY: #1049-B revised 10-30-27.
TRUCK: #1600 dated June 27, 1927.
 Light and wiring #1425-A, revised 6-28-27.
 Batteries.
 Generator #53-B revised 8-8-27.

3. DIMENSIONS:

Length over buffers coupled	76'2"
Length over sills	66'9"
Length between truck centers	50'6-3/4"
Length inside between end finish	65'3-7/8"
Width over side sills	10'0-5/8"
Width inside between wainscoting	9'1-7/8"
Width over all at eaves	10'2-1/2"
Height, track to roof at center	14'3-3/4"
Height, rail at side to eave moulding	11'3-1/4"
Height, inside top of floor to underside of head-lining at center of car	9'1-5/8"

4. FRAMING: Steel per drawings.

All plates and bars 3/8" thick and less copper bearing steel.
CENTER SILLS: 5/16" web plates reinforced at top by two 3" x 3" x 3/8" angles and at bottom by two 3" x 3" x 1/2" angles secured by 3/4" rivets spaced as shown on drawings.

Sill angles bent cold.

Underframe cambered 1-1/4" in 66'9"

Lower floor plates 1/8" galvanized copper bearing steel secured with 3/8" rivets.

CENTER SILL COVER PLATE: 24" x 1/4" in one piece between end sills riveted to top flanges of outside angles with 3/4" rivets spaced as shown on drawings.

SIDE SILLS: 12" Channels 20.7 pounds per foot Carnegie Section C-2 reinforced on top by a 2-3/4" x 5-1/2" x 5/16" bent plate, secured to top flange of channel with 5/8" rivets.

SIDE FRAMING: Corner posts 3" x 2-11/16" x 2-11/16" x 1/4" "Z" bars reinforced on vestibule end by one pressed U-shape 4" x 3-1/2" x 2" x 1/4". Side posts pressed U-shape 5" x 2-1/2" x 1-1/4" x 3/16".

Cripple posts below windows 5" x 2-1/2" x 1-1/4" x 3/16" pressed steel.

All posts secured to side sill with two brackets and to side plate with 3 - 1/2" rivets for 5" posts and with 2-1/2" rivets and one bracket with 2-1/2" rivets for 3" posts.

BELT RAIL: 4" x 1/2" Open Hearth Steel in one continuous piece from corner post to corner post and reinforced by 1/8" "Z" shaped pressed pieces between side posts, secured to posts as shown on drawings.

SIDE PLATE: Material, O.H.S. U-shape 3" x 5-1/8" x 2-1/2", 1/4" thick.

UPPER DECK SILL: Material: O.H.S. size 8-1/2" x 1-1/2" angle 3/16" thick.

DECK PLATE: Material: O.H.S. size 5" x 2-1/4" x 3/16" pressed U-shape.

CARLINES: Material: O.H.S. 1/8" pressed U-shape.

Lower deck 3-1/2" x 2" x 1/8".

Posts between deck sill and deck plate 5" x 2" x 1/8".

Upper deck carlines 7-13/16" x 2" x 1/8" at center of car.

Carlines riveted to side plates, deck sills and deck plates with 1/2" rivets.

END FRAMING, VESTIBULE END: Main vertical members are two 6" "I" beams 23.9 pounds per foot. Intermediate posts 4" channels 5.4 pounds per foot. These members extend below floor line and are riveted to end sill as shown on drawing 15-A-1060.

4. FRAMING: (CONT'D.)

The top of these members connected to built-up plate girder consisting of two 5/16" plates with 3/8" bent plate fillers all per drawing 15-A-1060.

END FRAMING. OBSERVATION END: Main vertical members to be two 6" "I" beams 23.9 pounds per foot, reinforced with two plates 5" x 3/8" riveted to "I" beam. Intermediate posts 4" channels 5.4 pounds Carnegie Section C-9. These members extend below the top of the end sill and riveted to same with 5/8" rivets. The top of these members are connected to built-up end plate girder consisting of two 5/16" x 11-3/8" plates separated with pressed U-shaped plates 1/4" thick riveted together with 5/8" rivets.

END SILLS OR BUFFER CASTINGS: Cast steel Pattern No. CS-573 per drawing 15-A-1056 and applied per drawing 23-A-1483 for vestibule end. Cast steel pattern No. CS-507 per drawing 23-A-1198 and applied per drawing for observation end.

For painting, see paragraph #166.

5. ANTI-TELESCOPING DEVICE: See "Framing".

6. END SILLS: Cast steel per drawings.

7. FLOORING: Lower floor 1/8" galvanized copper bearing steel secured to underframe with 3/8" rivets as shown on drawings.

Both sides have one coat of No. 1 approved car roof cement.

Nailing strips yellow pine located per drawings.

Nailing strips made of proper thickness to make top of floor covering level in all parts of car.

Flooring throughout the car, except kitchen, pantry and toilet room, single Yellow Pine, quarter sawed, tongued and grooved 7/8" x 3-1/4" face, laid lengthwise of car, blind nailed at each crossing with one 8-d flooring brad and face nailed at each crossing with one 8-d flooring brad, which are set and puttied, puttied after coat of paint.

Coved starting piece of Flexolite flashed with 14 pounds copper .025" thick secured to floor with 1-1/4" tinned barber wire nails soldered over heads and to sides with clips spot welded, all as shown on drawings.

Flexolith 5/8" thick, above wood floor, throughout car except toilet room, kitchen and pantry, secured with chicken wire, 2" mesh No. 16 wire, .0625 gauge, secured to floor with 1" staples No. 10 wire 8" apart.

Floor in kitchen and pantry double Yellow Pine, quarter sawed, tongued, and grooved.

Bottom floor 7/8" x 3-1/4" laid lengthwise of car, and top floor 7/8" x 3-1/4" tongued and grooved, laid diagonally and covered with 25 pounds copper .042 thick, all as shown on drawings, nailed with large brass nails 7/8" long, round heads, per shop card 11978 spaced two inches apart with heads soldered over.

Floor in kitchen and pantry was painted two coats heavy paint before copper was applied, also between the double floor.

Toilet sub-floor Keystone floor plates 5/8" high, No. 22 U.S. gauge galvanized steel covered with 5/8" thick. Velvetile floor composition, color No. 22, and mixed with a chloride solution when applied.

One square foot of surface 1/2" thick required 4-1/2# of Velvetile composition and about one quart of chloride solution. The floor sloped slightly towards the plug which was applied in the floor per shop card 11836, and with cove up against the side walls of the toilet rooms, and truss plank. A few days after laying floor, coat with paraffine. Applied evenly to surface.

8. BOLSTERS: Double, built-up, with Open Hearth pressed steel diaphragms, per drawing No. 15-A-903, with 1/4" x 4'3" O.H.S. cover plates on top and 1/2" x 8" O.H.S. plates on bottom. Four malleable iron jack blocks to each bolster. Pattern CM-418 per drawing 15-D-359.

9. CENTER BEARINGS: Pressed steel 1/4" thick, body bolster center filler per drawing 15-A-977, pattern CS-483.
10. CENTER PLATES, BODY: Per drawing 15-A-976, cast steel pattern CS-482. Bearing surfaces perfectly smooth and pass gauge per drawing 15-A-978. Center plates lubricated with hard grease. Center plates secured with 12 - 7/8" rivets. Center plates have oiling arrangement per sketch 3294. Oil reservoir and lid per drawing 16-D-896, pattern CB-475 and CB-476. Oil pipe 1/4" steel pipe. Miner locking center pin greased thoroughly with hard grease before assembled.
11. CENTER SILL SPACER: Built up per drawing.
12. CROSSTIES: Four: Two center per drawing 15-A-902 and two intermediate per drawing 15-A-901.
1/4" pressed diaphragms reinforced on top and bottom with 1/4" x 8" plates.
13. TRUSS RODS: None.
14. STYLE OF OUTSIDE: Sheathing 1/8" C.B.O.H.S. blue annealed plates applied between windows extending from letterboard to belt rail, riveted to letterboard, posts and girths, with 3/8" rivets. At girth a batten was used. The sheets below the window are 1/8" O.H.S. plates, applied in sections with 4-3/4" x 1/8" battens at joints securely riveted to all frame members with 3/8" rivets.
Square elevation.
No high windows.
15. SASHREST: Santa Fe standard steel sectional.
16. INSULATION, FLOOR: Bottom course one 1/2" Hairfelt. Top course 1/2" Insulite fitted between nailing strip secured to nailing strips and covered with 1/8" thick Petroleum Asphalt mopped on hot, per drawing.
17. INSULATION, SUPERSTRUCTURE: Two courses of 3 ply Salamander between posts fitted tight to inside of outside sheet and secured with galvanized steel pressed bands with flanges per Shop Card 12008. Bands extend across insulation between posts.
The letterboard above windows insulated with one course 2 ply Salamander secured to inside of letterboard with R.M. Lucas Co's. insulation cement, and covered with galvanized copper bearing steel sheets.
The top wedged to letterboard with four C.B.O.H.S. angles 1" x 1-3/4" x 1-3/4" No. 14 gauge secured to side plate with 1/4" bolts riveted over nut.
Saloon partitions adjacent to any room where passengers have access was properly insulated.
18. INSULATION, ROOF: Two courses of 3 ply Salamander fitted to underside of roof sheets secured with galvanized steel pressed bands with flanges per shop card 12008. Bands extend crosswise of car in upper deck, bands in lower deck extend lengthwise of car bent at right angles and bolted through carlines with 1/4" stove bolts riveted over nuts.
19. ROOF: Roof sheets upper deck No. 14 galvanized copper bearing steel. Lower deck No. 16 galvanized copper bearing steel. Roof secured with 1/4" black rivets. Joints covered by 1/8" x 2" galvanized copper bearing steel battens.
All joints and edges of splice plates to be soldered.
20. HOOD: C.B.S. per drawings for vestibule and observation ends.

21. ROOF & HOOD COVERING: Galvanized copper bearing steel. #14 .073 gauge to upper deck #16 .063 to lower deck. Copper flashing 14 lbs. .025" thick at deck sash windows, extending 1" outside of deck screen continuously and flashed up on deck posts in a manner to make entire deck leak proof and as shown on drawings.
22. GUTTERS: At vestibule side doors and at side and end of hood at both ends of car of #16 galvanized copper bearing steel.
23. THRESHOLDS: Made of No. 10 U.S. gauge pressed copper bearing steel and have Kass tread as shown on drawings 23-D-974 observation end and 15-D-1086 to vestibule end.
24. INSIDE FINISH MATERIALS: All inside finish material No. 18 U.S. gauge furniture steel secured with No. 8 round head machine screws.
 No cloth to inside of finish.
 Felt paper applied at points where the steel finish comes in contact with the framing members.
 Truss plank throughout car of steel per drawing.
 Window capping of wood finished to match finish of car. Window cap apron of steel.
 Finish below belt rail No. 18 U.S. gauge furniture steel.
 Toilet room, plain perfectly smooth flanged lining and ceiling of No. 18 U.S. gauge furniture steel.
 Side-board, book-case, typewriter desk, dining room table, dining room chairs, stateroom dressers, removable tables in staterooms and observation room, stateroom chairs, all made of Mexican mahogany and stained walnut same shade as used on Lot 4986.
 All window sash, Mexican mahogany.
 Angles applied to bottom of partitions to lessen deterioration of the partition panels due to corrosion.
 Insulation on partition at side of range, also on end and side finish back of range .019 galvanized steel and 3/8" asbestos.
 Insulation also applied below range.
 Interior of heater room lined with 1/4" asbestos board and galvanized steel.
 Blueprint of wiring diagram of car in the tin case in switchboard locker.
 Slots in knife rack applied on kitchen side of entrance door to kitchen.
 Framed blueprint showing the dimensions of car screwed to end of car in vestibule above trap door.
 Shelf 9" wide to run along across partition between kitchen and porter's room on kitchen side below overhead locker, this shelf provided with a nosing 3/4" high. A guard to run along on a line with the front of these shelves 3" above the bottom of the shelf so as to prevent glasses, etc., from falling out. A 3/4" nosing applied to the front edge of the shelves of the lockers in kitchen.
 Dish lockers fitted with racks to keep plates, etc. from sliding around, similar to racks which were applied on previous Santa Fe Business Cars of Lot 4883.
 Cabinet above side-board fitted with holding racks for glassware, same arrangement as previous business cars of Lot 4883.
 Private room "A" window equipped with a loose board to prevent drafts, fitted to a channel groove and as high as possible.
 All openings in cross partition where heater pipes or water pipes run through carefully closed up to prevent draught.
 Medicine cabinet in room "A".
25. INSIDE FINISH DESIGN: Plain steel per drawings.
26. DOORS: End doors made of No. 18 furniture steel 1-1/2" thick, hinges Adams & Westlake No. 270.
 All partition and locker doors made of No. 18 U.S. gauge O.H.S. Double acting swinging doors in passageway made of No. 18 furniture steel. No protection bars required.

27. SCREEN DOORS: Full size screen doors both ends of car provided with copper screen No. 29 U.S. gauge 24 mesh. Observation end screen door has four protection bars on each side.
28. TABLES: Mexican mahogany. One small movable table 24" x 34" for use in observation room per drawing 105-D-91.
 One section table in stateroom "B" 2'2-3/4" x 22-1/2" per drawing 192-D-59.
 One section table in porter's section 2'2-1/4" x 22" per drawing 192-D-59.
 One section table in stateroom "C" 24" x 24-1/2" per drawing 228-D-100.
 One dining table Mexican mahogany finish per drawing 213-D-69.
 Arrangement for holding dining table in center of room and at wall of car kitchen passageway side.
 One green billiard cloth cover provided for dining table when closed, this cover has elastic in edges so as to draw and hold the cover tight.
 Four leaves for dining table.
29. TABLE LININGS, KITCHEN & PANTRY: Carving tables, pantry tables, and milk cooler, etc., covered with 1/8" C.B.S. plates, then covered with Monel metal .05" thick over the steel with edges turned over so it cannot work loose, perfectly smooth on top.
30. CEILING: Flat ceiling with beams made of No. 18 U.S. standard gauge steel, secured with #8 round head machine screws.
 Kitchen, pantry and upper berths have curved lower deck.
 Ceiling plan per drawing.
31. CEILING DECORATION: Same as Lot 4986.
32. WINDOWS, NUMBER: Each side 15 and 17, two at observation end, none at kitchen end.
33. WINDOW SASH: Outside and inside sash Mexican mahogany. Windows double in one part except in bathroom, single in one part.
 Kitchen and pantry windows single in two parts. The upper part drops and the lower raises except lower sash in kitchen which is stationary. The upper part divided into two sections, the upper section provided with screen and the lower section provided with glass so that when sash was dropped the screen covered the opening. Observation room end windows single in one part stationary. All deck sash wood with steel facing.
 See paragraph #204.
34. SASH FIXTURES: One each of O.M. Edwards No. 17 and No. 18 sash locks, two A-101 compression rollers to all large inside sash.
 One each of O.M. Edwards No. A-501 and No. A-502 locks, two A-101 compression rollers to all large outside sash.
 One O.M. Edwards No. A-21 sash lock, one lift and two A-101 compression rollers to single sash in toilet room.
 All inside and outside sash 3'0" and 4'0" wide equipped with Caldwell sash balance No. 32.
 Kitchen and pantry inside and outside sash have one each of O.M. Edwards No. A-501 and No. A-502 lock, no compression rollers required.
 Each wood blind has one A.&W. No. 2 blind bolts at bottom.
35. WEATHERSTRIP: LARGE DOUBLE WINDOWS: (4'0", 3'0" and 2'4-3/4")
OUTSIDE SASH: Protecto weatherseal strip MB-200 brass bound black oxford felt to both sides.
 Pullman standard to bottom.
 Santa Fe standard Protecto MB-400 to outside face of top rail.

35. WEATHERSTRIP: (CONT'D.)

INSIDE SASH: Protecto weather seal strip MB-200 brass bound black Oxford felt to both sides on inside of sash. Pullman standard to bottom.

Santa Fe standard Protecto MB-400 to inside face of top rail.

WINDOW IN TOILET ROOM: Protecto weather seal strip MB-200 brass bound black Oxford felt to both sides. Pullman standard to bottom.

Santa Fe standard Protecto MB-400 to inside and outside face of top rail.

WINDOWS IN KITCHEN & PANTRY:

OUTSIDE SASH: Protecto weather seal strip MB-200 brass bound black Oxford felt to both sides.

Santa Fe standard Protecto MB-400 to outside face of center and top rail.

INSIDE SASH: Protecto weather seal strip MB-200 brass bound black Oxford felt to both sides and outside. Pullman standard to bottom.

Santa Fe standard Protecto MB-400 to outside face of top rail.

VENTILATOR & INTAKE DECK SASH: Protecto No. 2 brass bound black Oxford felt to sides and top on outside. Bottom rail has Protecto No. 1-A brass bound black Oxford felt.

END DOORS: Lock side, also in and outside bottom has Protecto weather seal strip MB-700, 1-1/8" No. 22 gauge copper bearing steel binding black Oxford felt, hinge side and top of door has Protecto SC-No. 7 1-1/8" No. 22 gauge copper bearing steel binding and black Oxford felt.

VESTIBULE SIDE DOOR: Protecto weather seal strip MB-800, 1-1/2" 22 gauge copper bearing steel binding and black Oxford felt to in and outside at bottom of door. See paragraph #204.

36. WINDOW SCREENS: Tuco Products Corp. "Royal" car window screen type No. 1-A per drawing 192-D-85-1 with locking bolt inside of frame, bolt to lock screen in lowered position to all windows that raise except those in kitchen and pantry.

Steel combination parting stops and screen slides.

Screen in bathroom Tuco adjustable type per drawing 83-C-17-A. All screens provided with 36 B.&S. gauge brass wire 45 mesh.

37. DECK SASH RATCHETS: A.&W. No. 26. All deck sash pulls secured with stove bolts riveted over nuts. Nuts on outside per shop card.

38. GLASS WINDOWS:

Observation room end windows 1/4" Polished plate...	23" x 46"
Observation room side windows 3/16" polished plate.	29" x 44"
State rooms A.B.C. Porter's room and passageway at staterooms to have 3/16" polished plate.....	29" x 24-1/2"
Dining room and kitchen passageway 3/16" polished plate.....	29" x 32"
Kitchen and pantry 3/16" polished plate.....	13" x 24-1/2"
Glass in toilet room pressed Prism design .05.....	29" x 24-1/2"

39. GLASS, UPPER DECK, INSIDE: None.

40. GLASS, UPPER DECK, OUTSIDE: None.

41. GLASS, DOORS:

Observation end door 1/4" polished plate.....	15-3/4" x 15"
Observation end door 1/4" polished plate.....	15-3/4" x 40"
Kitchen end door 1/4" wire glass.....	18-1/2" x 28-5/8"
Swinging door at observation end 1/4" plate glass..	15" x 23-1/2"
Vestibule side door 1/4" American polished plate...	24" x 22-1/4"
Steel wrecking tool box D.S.A.A. glass.....	7-3/4" x 33-7/8"

ing door at kitchen end, same design as Lot 4883.

Plain 1/4" polished plate:
 One mirror above dresser, stateroom "A"
 One mirror above washstand stateroom "A"
 One mirror above dresser, stateroom "B"
 One mirror above washstand, stateroom "B"
 One mirror above dresser, stateroom "C"
 One mirror above washstand, stateroom "C"
 One mirror above washstand, porter's room.
 One mirror above washstand, toilet room
 One mirror above dresser, toilet room.
 One mirror in sideboard dining room.
 Full size mirror to entrance door room "A"

43. SHADES: Wood blinds in two parts to kitchen and pantry windows.
 Pantasote, pattern "J" color No. 86 Morocco back to windows in porter's room. Balance of car, Pantasote Morocco grain leather back, No. 86-M-4, color jade green same as applied on Lot 6102. Curtains to both end doors.
 No curtains to passageway swing doors.
 No fringe to any curtain bottoms, which are the same material as facing of curtains.
 Curtains in toilet room roll from bottom up. Balance of curtains roll from top.
 All curtains for doors and windows made wide enough, to fully cover the glass and exclude all light.
 Roller curtain canopy of Pantasote Co's. #86-M-4 color jade green material, over bed in room A. Edge of these curtains covered with a binding strip 6" wide on both sides.
 Inner curtains not required.
44. SHADE FIXTURES: The National Lock Washer Co's. No. 151 fixtures to all shades except in toilet room and stateroom "A". Toilet room has Pullman standard curtain fixtures to roll from bottom up.
45. SHADE ROLLERS: The National Lock Washer Co's. 1" Hartshorn all metal curtain rollers.
46. PORTIERES & DRAPERIES: One portiere at entrance to dining room, Orinoka Mills 5943-1116 double faced velour. Silk curtains to glass doors in sideboard. L.W.&C. #2285-F color 3-Jade.
47. SEATS: Pullman standard high back metal frame, with standard seat slides in stateroom "B". Sofa in dining room and observation room, to form upper and lower berth. Sofa in dining room and observation room heavily upholstered. Sofa in dining room upholstered with loose cushion style plain back. Sofa in observation room has French piping.
 Six Mexican manogany dining chairs per drawing.
 Three Coach & Car Equipment Co's. No. 336 high back chairs.
 Two Coach & Car Equipment Co's. No. 335 low back chairs.
 Two Pullman #77-D chairs, one for each of rooms A and C.
 Drop seat in passageway kitchen end of car.
48. SEATING CAPACITY: Per plan.
49. SEAT LOCKS: None.
50. SEAT ENDS: Suit finish, made of steel.
51. SEAT COVERING: The Coach & Car equipment chairs #335 and #336 covered with Hyaline Leather No. 43-C-0-2.
 Porter's section and folding seat in passageway Cletan Leather, #43-C-0-2.
 Observation room Hyaline leather grade #43-C-0-2.
 Dining room and private rooms "A", "B" and "C" Massachusetts plush quality acton, Pattern K, color Holland 944 per sample, 50" wide.

Berth lock arm for each upper berth, also Safety guard for each upper berth.

Back of sofas in dining room and observation room form upper berth.

53. BEDS: Wood bed in stateroom "A".
54. BED SPRINGS: Box spring for bed in stateroom "A". Pullman standard metal frame to upper berths in rooms B & C wood frame in room A and servant's section.
55. SALOONS: One per plan. Inside finish No. 18 steel perfectly smooth flanged lining and ceiling secured with round head machine screws, slots puttied.
Top of saloon floor is flush with the floor in body of car. The difference in thickness of flooring is taken care of by reducing thickness of floor nailing strips, all as shown on drawing.
56. SALOON ROOF: Roof of car.
57. SALOON VENTILATORS: One 6" Globe ventilator.
58. SALOON HOPPERS: One Duner #6 cast iron enameled, with porcelain bowl on top, bowl has extended lip Duner No. 6 with side wall pull. Hopper lids, Never Split Seat Co's. Evernu No. 550 seat and cover for lip hopper per drawing. Ball type of handles for open hoppers.
Four Duner enclosed hoppers R.H.
Cast iron enameled hopper chutes.
59. DISINFECTANTS: None.
60. WATER COOLERS: None.
61. DRINKING CUP VENDORS: None.
62. WATER FILTERS OR BOTTLES: One Giessel No. 4 filter with R-3 automatic shut-off valve in kitchen.
63. WASHSTANDS: Five (5) white metal folding washstands with open plumbing Pullman make.
64. SINKS: In kitchen and pantry galvanized steel. Top around sink covered with 1/8" steel plate and Monel metal over the steel.
All Monel metal turned over the edges so it cannot work loose, and perfectly smooth on top.
65. BATHS: One 30 x 38-1/2 Watrous porcelain recess bath tub equipped with Watrous exposed shower with Niedecken Mixing valve, checkvalve and supplies, shampoo, riser, curtain rod with brackets. Aqua silk curtain, curtain snaps, hold back hook, shower arm and cast brass needle head, Bath tub flashing of .028 Monel metal.
66. TOWEL ROLLERS: One applied on kitchen side of kitchen door.
67. WATER SUPPLY: Air pressure water system. Tank 28" in diameter 8'0" long located below car in galvanized steel tank box provided with steam heat and drip thawing device to prevent freezing. Box well insulated, all as per drawing 23-A-851. Reducing valve Westinghouse Pc. #77894.
Pipe fittings, valves, etc., listed on drawing No. 23-A-851.
One hot water supply tank located in kitchen made of .162 copper 16" in diameter and as long as possible.
Connecting pipe with stop cock from air pressure water tank to overhead tank in kitchen so overhead tank can be filled from tank under car when desired, also direct feeding pipe for filling.

Pipes run so that they can be readily drained and so that there will be no heating of cold water supply and no liability of freezing, particularly at cross overs.

No water heating jacket in heater room required.

3/4" brass water supply pipes.

Annealed copper connections to hoppers and washstands except where otherwise specified.

Shut-off cocks placed so that they can be easily reached and at the same time be located so as to present good appearance.

Air pump connected to a small electric motor to pump air for the water tank when the car is on siding.

Giessel No. 4 filter without base filter so applied that stone may be removed without taking down filter, also automatic shut-off valve. Filtered water tank 8" x 8" x 14" galvanized steel.

Cutout cock provided on both sides of air storage so that repairs may be made to governor and reducing valve without losing compressed air in storage.

No mud drum required with direct feeding pipe.

Valves were used in all cases.

Hot water obtained from hot water tank on range for kitchen only.

Hot water for balance of car obtained from jacket on steam pipe and located in the air pressure tank box. No circulating pump required.

Loom tubing applied to all water pipes adjacent to steam pipes.

68. HEATING SYSTEM: Vapor Car Heating Co's. vapor system of steam heat per drawing including hot water specialties, hot water protection specialties and pipe stands and clamps. Also two soil steel heaters in connection with the hot water heating system, no steam jacket connected with the hot water heating system. End train pipe valves #1104.

Revolving jack applied to heater.

Drip thawing device applied to air pressure water tank.

Stove pipe to heater jack run as straight as possible so as to give good draught and avoid cinder pockets.

Vapor Co's. No. 510 safety valve on each expansion drum.

Vapor Co's. No. 500 filling device applied.

All valves in heater room placed so that they can be readily operated and each valve tagged with a brass tag, wired on, indicating the function of the valve.

Steam traps arranged so that condensation will not blow onto axle device.

Vapor Co's. No. 520 filling valves.

Steam line under expansion drum covered to prevent freezing.

Wood knob on end of heater damper handle short enough so as not to rub on lining of heater door when door is closed.

Framed instructions covering the operation of heater, steam heating system and steam trap applied in porter's section. Heater pipes applied on two vertical rows.

Vapor Co's. adjustable pipe clamps used.

Vapor Co's. locomotive steam gauge #220 applied in observation room.

69. HEATING STEAM COUPLER & HOSE: Vapor Car Heating Co's. metallic steam hose #1135 2" per drawing with S-4 couplings. #1104 end valves.

70. HEATING PIPE COVERING: Johns-Manville asbestos sponge felt covering 1" thick on train line and exposed steam and water pipes below car.

71. HEATING PIPE & FITTINGS: All steam heat pipes steel.

All steam pipe connections to the outout valve below floor made of brass where they pass through floor. A typical arrangement of these connections is shown on drawing 16-S-2001, sheet 1.

- throughout car, extend within about 2" off floor, top guard provided with carpet padding on top edge in dining room and observation room.
73. HEATING, COAL BOX: Coal box in kitchen near passageway; also one below ice box on platform. Overhead coal box applied over the double coil heater Pullman standard and filled from roof.
74. RANGE: Stearnes coal burning range without broiler 24" x 33" and swing door in kitchen. Revolving jack applied on top of roof.
75. URN, BROILER OR GAS PLATE: None.
76. VENTILATORS: Ten Mudge Peerless provided with screens fastened with machine screws.
Deck sash at ventilators marked with letter "V".
Kitchen provided with one Santa Fe Haven ventilator, no operating device. See paragraph #205.
77. DECK SCREENS: All intake deck openings provided with screens except where ventilators are located. Screens will consist of copper .014 gauge 24 mesh.
Screens in ventilators copper wire No. 36 gauge 45 mesh, applied to galvanized steel removable frames secured in place with brass machine screws.
78. WRECKING TOOLS: Two sets. Saw, sledge and cold chisel in steel box located inside of car per plan. The other set located in tool box underneath car. Per Pullman standard. Wrecking tools for both boxes are the same. Handles initialed "A.T.&S.F. R.R." and number of car. One Pyrene fire extinguisher, one quart pump type, per plan.
79. SIGNAL LAMP BRACKETS: Santa Fe standard on corner posts and hood corner at both ends of car per drawing.
80. MAIL FIXTURES, MISCELLANEOUS: None.
81. MAIL FIXTURES, POUCH RACKS: None.
82. MAIL FIXTURES, LETTER CASES: None.
83. MAIL FIXTURES, PAPER BOXES: None.
84. MAIL FIXTURES, MAIL CATCHERS: None.
85. MAIL FIXTURES, CINDER GUARDS: None.
86. DOOR CHECKS & HOLDERS: Yale #K-13 to each end door and Yale #11 to screen doors at vestibule and observation ends, also to door between diaphragm posts. Berg door holders to entrance doors to staterooms.
Door holder to end doors.
87. FLOOR COVERING: Observation room, staterooms A.B. and C, dining room and observation room passageway covered with Bigelow Lowel Wilton Carpet, pattern No. 14123 color 64, per sample with Ozite cushion under carpet. Passageway kitchen and porter's room covered with 5/16" thick rubber tiling 1-1/2" grey and black squares. U.S. Rubber Co's. make, cemented to floor with Woods Cement for rubber tiling.
Kitchen and pantry floor covered with 25 pounds copper .042" thick, nailed with large brass nails 7/8" long, round heads, per shop card 11978, spaced about 2" apart with heads soldered over heavy coat of paint under copper. Bathroom covered with Velvetele composition.

with curled hair at edges. Plug insulated with Hairfelt and packed ly tight. Refrigerator lining No. 18 galvanized steel. Doors lined on inside with No. 18 galvanized steel. Refrigerator insulated with cork. Floor pan made of No. 16 galvanized steel, also ice compartment.

Lower part of refrigerator enameled white. Shelves made of #16 galvanized steel. Floor pan has 11" flanges.

All joints of inside lining soldered.

Drain pipes from the refrigerators provided with drip trap, to prevent the ingress of air through the drain pipes into ice box. Drains 1-1/4" in diameter. All drains to clear trucks and tapered 1/2" larger at bottom. One small refrigerator in kitchen and pantry, also one milk cooler in pantry, both lined on inside with No. 20 galvanized steel, lower part enameled white. Ice box lid in pantry hinged to swing against partition.

89. ANNUNCIATORS: The annunciator has drops marked A.B.C.D.O.BR.KP. and OP. The push on kitchen platform controls drop marked "KP"; the pushes in dining room drop "D"; the pushes in rooms "A,B, and C" shall control drops marked "A","B" and "C" respectively; the push in bathroom drop "BR"; observation room drop "O" and push on observation platform drop marked "OP". No. 16 B.&S. gauge Okonite fixture wire shall be run for the annunciator circuits, and standard Pullman push buttons used through the car. Push buttons located at least 14" above sash rest to avoid accidental operation.

90. EQUIPMENT: As listed below:

CLASS #1

- 2 standard thermometers and backs
- 1 step box, per Railway drawing
- 2 brooms
- 1 coal hod
- 1 dust pan
- 1 awning
- 2 rubber door mats 18" x 30"
- 1 oil can HSB #591
- 1 wrench for range
- 1 pressing board
- 1 grate shaker
- 2 pokers
- 1 flue cleaner
- 1 fire shovel
- 1 lid lifter
- 2 lanterns and globes - white
- 1 sash raiser stick
- 4 sash openers one for each private room and one for kitchen
- 9 Tuco screens 21" high for 36" windows
- 4 Tuco screens 21" high for 48" windows
- 15 Tuco screens 21" high for 28-1/2" windows
- 3 screen hooks
- 1 Tuco screen 8-1/2" high for toilet window.
- 1 bunk key
- 4 Pullman camp chairs (wood)

CLASS #2

- 2 chamois skins
- 4 mattresses for sofas in dining room and observation room.
- 4 mattresses Pull. std. for upper berth in staterooms A,C and upper and lower berth in room B.
- 2 mattresses, porter's room
- 2 spring beds steel frame for upper berths in staterooms B & C.
- 2 wood frame spring beds for upper berth in Room A and porter's section.
- 1 box spring mattress for stateroom "A".
- 1 dining table cover, billiard cloth
- 1 car ladder
- 9 spittoons
- 5 berth hammocks

- 2 sets berth curtains sofa.
- 3 prs. berth curtains, old style for rooms A,B and C.
- 4 pillows, sofa, 2 covered with leather, 2 covered with plush.
- 3 section table (see item 28)
- 1 movable table (see item 28)
- 1 step ladder, wood
- 2 waste baskets. See paragraph #206.
- 4 bed spreads, M.F.&Co's. figured Armure #32457-Ocean green, #5807-3.

CLASS #3.

- 1 brake shoe key
- 1 hex wrench

CLASS #4.

- 1 brush stove
- 1 funnel
- 1 water side, extra
- 1 water back, extra

91. CAR LADDER: One, carried under the car and provided with chain and padlock.
92. TRIMMINGS: All trimmings 7-B statuary bronze in main portion of the car, No. 9 nickel plated in bathroom and No. 6 bright brass in kitchen and pantry. Hammock hooks applied in upper berth in staterooms and porter's room.
- Two combination coat and hat hooks and two coat hooks in suitable locations in porter's room.
- Match box holder, soap dish and towel roller in kitchen, hooks on partition, etc., in kitchen in suitable position to hold cooking utensils.
- Coat and hat hooks in suitable locations throughout car. The hat portion of the hooks to project far enough so that hats will hang on hooks properly.
- Brass guard rod to the outside of end windows in observation room and to the windows in both passageways, also to the side window in observation room adjacent to swing door.
- Metal cigar holder on cross partition at side of hopper in toilet room.
- Metal match box holders in dining and observation rooms.
- Door knobs, knobs on cabinets, etc. project as little as possible.
- Knobs on dresser drawers and drawers to sideboard.
- Metal rack in staterooms and toilet room for holding water bottles.
- Brackets for water tumblers with holders to suit same type of thermos bottles as employed on last business cars of Lot 4977. Bracket for holding deck sash openers on doors of wardrobe inside.
- Table plates in staterooms B and C.
93. LOCKS: End doors A.&W. #142 fitted to Santa Fe standard coach key.
- Sliding doors in kitchen and pantry equipped with locking bars.
- All lockers in kitchen, pantry, help's quarters, private rooms (A B & C) toilet room, also book case in dining room and observation room together with sideboard in dining room equipped with Pullman type of catches same type as installed on last Supp. Cars of Lot 4977.
- Yale night latches to end doors and provided with three keys.
- All lockers, sideboard and refrigerators fitted with Yale locks and with two keys. All Yale locks in single tumbler and each car has a different set of keys so that no two groups are alike on any car. Separate master key for each car and operates all locks in car except group for night latches.
- Locks grouped as follows:
- GROUP #1:
- Kitchen entrance door.
 - All kitchen lockers, cupboard and refrigerators.
 - Vestibule refrigerator
 - Wood and coal box under car - padlock
 - Ladder under car - padlock.

GROUP #2

Pantry entrance door
China closet, doors and drawers in pantry
Refrigerator and milk cooler doors in pantry
Overhead lockers in pantry

GROUP #3

Linen locker in passageway
Overhead locker in toilet room
Drawer in toilet room
Drawers in passageway from rooms A, B, and C.

GROUP #4:

Overhead lockers in porter's room
Wardrobe in porter's room

GROUP #5

Doors and drawers in sideboard

GROUP #6

Stateroom "A"
Wardrobe
Dresser drawers
Overhead lockers
Drawer under bed

GROUP #7

Stateroom "B"
Wardrobe
Dresser drawers
Overhead lockers

GROUP #8

Stateroom "C"
Wardrobe
Dresser drawers
Overhead lockers

GROUP #9

Typewriter desk drawers room "C"
Typewriter locker room C
Doors in bookcase in dining room

GROUP #10

Sliding doors in bookcase, observation room
Drawer in writing table in observation room

GROUP #11

End door night latches
Yale sub-treasure R-384 R.H. lock with spring bolt with key No. 3-TY-1 to regulator cabinet in help's quarters.
Pullman pattern latch with lock (special key) and thumb bolt on entrance doors to toilet room and stateroom. Key to these locks as short as possible.
Mortise latch with thumb slide on inside of the door between vestibule posts. The outside of this door provided with vestibule side door handle. One side of each key smoothed off and stamped with steel stencil to indicate to which group the key belongs.

OBSERVATION ROOM:

One shelf 12" wide 6'0" long.

STATEROOM "A":

One comb and brush rack
One towel rack
One soiled towel rack
One rack above windows has two prong hooks
One water bottle rack

STATEROOM "B":

One comb and brush rack
One towel rack
One soiled towel rack
One water bottle rack

STATEROOM "C":

One comb and brush rack
One towel rack
One soiled towel rack
One water bottle rack

BATHROOM:

One comb and brush rack
One towel rack
One soiled towel rack
One water bottle rack

DINING ROOM:

One 3'4-1/2" rack above center windows on each side.

PORTER'S ROOM:

One comb and brush rack
One towel rack

95. LIGHTING SYSTEM: The wiring system arranged for use in connection with an axle-driven, 32 volt dynamo, operated in conjunction with a storage battery, mounted under the car body.
96. AXLE DEVICE: 32 volt axle light equipment 4 KW Safety C.H.&L. Co; truck mounted on Santa Fe suspensions as shown on drawing #20-A-930.
Axle pulley 21" in diameter, M.I. Santa Fe pattern CM-2199, drawing 20-B-931 Dayton Malleable Iron Co's. make.
97. AXLE DEVICE SUSPENSIONS: 32 volt truck suspended type.
98. BATTERIES: The batteries consist of 16 cells MVAH-25 450 ampere hours Exide Ironclad purchased from Electric Storage Battery Co.
99. BATTERY BOXES: Two provided per Santa Fe drawing 23-A-924 applied and wired complete by the Car Builders. Ventilator and handles per Shop card 11808 provided. The battery box painted on the inside with one heavy coat of paraffine and rosin 1/3 rosin and 2/3 paraffine, applied hot.
100. CHARGING RECEPTACLES: One (1) No. 1569, 100 ampere D.P. Anderson type "C" charging receptacle.

The dynamo lead wires are OKO-Cord No. 4 B.&S. gauge 600 volt flexible switch cord. All No. 14, No. 12, No. 10, and No. 8 wires have 3/64" thickness rubber insulation and double braid. All wires No. 4 and No. 2 B.&S. gauge have 4/64" thickness rubber insulation and double braid. All wires larger than No. 2 B.&S. gauge have 5/64" rubber insulation and double braid. All wires are without joints or splices between outlet or junction boxes, all joints or splices in wires being located in outlets or junction boxes at terminals. All joints where practicable were telegraph type, spirals on joints were open to permit free access of solder to entire surface of wires, and the surface of wires at all joints completely covered with solder. All joints covered, first with sufficient Okonite tape and then with sufficient Manson tape to make insulation of joints equal to that of wires. A sufficient length of wire left at fixture and bracket outlets to permit easy splicing to fixture wire when replacing fixtures. The dynamo lead wires equipped with terminals and secured near the type "B" Crouse-Hinds conduit to a suitable terminal block with 5/16" brass bolts. The flexible dynamo leads cleated after leaving terminal block so as to relieve the terminals of strain.

CIRCUIT NO. 1: Two lights kitchen platform; two lights kitchen end hallway; two lights observation end hallway and two lights on observation platform; Eight lights. Two No. 14 B.&S.G. wires.

CIRCUIT NO. 2: One center light room "B"; 1 center light room "C", and two center lights in observation room. Four lights. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 3: One center light in porter's room; two center lights in dining room and one center light in room "A". Four lights. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 4: Three lights room "A"; one light in bathroom; three lights in room "B"; three lights in room "C" and two reading lights aisle side observation room. Twelve lights. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 5: One mirror light and three berth lights in porter's room; one desk light and six deck rail lights in dining room. Eleven lights. Two No. 14 B.&S.G. wires.

CIRCUIT NO. 6: One reading light at head of sofa in dining room; one upper berth light in room A and three berth lights each in rooms "B" and "C" and three reading lights in observation room. Eleven lights. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 7: One fan each in porter's room, rooms "A", "B" and "C" and dining and observation rooms. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 8: Three lights in pantry; five lights and one fan in kitchen. Eight lights and one fan. Two No. 14 B.&S.G. wires.

CIRCUIT NO. 9: One locker light; two marker lights. Three lights. Two No. 14 B.&S.G. wires.

CIRCUIT NO. 10: Pressing iron. Two No. 10 B.&S. G. wires.

CIRCUIT NO. 11: Air compressor motor. Two No. 12 B.&S.G. wires.

CIRCUIT NO. 12: Dynamo indicating lamp. Two No. 14 B.&S.G. wires.

CIRCUITS NO. 10 & NO. 11 connected to the switchboard so that they were separated from other circuits on the panel, and current supplying them was supplied direct from battery.

102. TRAIN WIRES: One trainline consisting of two No. 2 B.&S.G. wires connecting Gibbs Standard female No. 3-G angle style, two finger, figure "L" receptacle with dust cover installed at each end of car, wires connected with trainline switch on switchboard with two No. 2 B.&S.G. wires. A standard two-wire, figure "W W W" Gibbs trainline connector furnished with each car.

All wires run in unlined rigid steel conduit of the best grade "Greenfielduct" brand. No conduit was less than 3/8" in diameter. The conduit system was first installed complete with all couplings, elbows, junction and outlet boxes, before any wires were pulled in. All threaded joints cut square, reamed out smooth, and conduit connected butt to butt in coupling so as to form perfect continuity. Conduit ends at all outlets where outlet boxes are not used provided with T.&B. bushings. Conduit of sufficient size was used throughout to permit wires being drawn into place, withdrawn and reinserted in place at any time without damage to either the wires or conduit. All conduit and junction boxes coated on the inside with baked enamel. All condulets and junction boxes so installed that they may be of easy access, after finish has been applied.

All conduits rigidly supported where at all possible, and at least every five feet, by suitable pipe-straps and at outlets conduits were securely fastened.

A 1-1/4" conduit runs from switchboard junction box to outlet for trainline receptacle on kitchen end of car; a 1-1/4" conduit also runs from above box to outlet for trainline receptacle on observation platform end. Trainline conduit runs between roof and deck finish, except in kitchen and pantry where it is exposed.

KITCHEN: A 1-1/2" conduit runs from switchboard junction box to center lamp junction box in porter's room.

From above center lamp box a 3/4" conduit runs thru a T-217 in deck of pantry and a T-217 in pantry locker through an LB-27, thru a T-27 below kitchen locker to a J-2 above refrigerator.

From aisle side of T-27 a 3/4" conduit runs thru an LB-27 and a J-2 condulet above work table to a T-27 condulet on partition.

From above T-27 a 1/2" conduit runs over door to a K-1 condulet on lock side of door.

From same T-27 a 3/4" conduit runs to an FS-22 condulet for light and fan switch at hinge side of door.

From the opposite side of J-2 condulet over refrigerator a 1/2" conduit runs thru an LR-17 thru a J-1 condulet for light over sink, thru a T-17, to a K-1 condulet for light above and at left side of range.

From the short hub of above T-17 condulet a 1/2" conduit runs to a K-1 condulet with CC-5 receptacle for future application of bracket fan.

PANTRY: In pantry from first T-217 condulet a 1/2" conduit runs to a K-1 condulet lite in pantry deck. From T-217 in pantry locker a 1/2" conduit runs thru an FSS-1 condulet for pantry lite switch and thru a J-1 condulet to a K-1 condulet for other pantry lites. Conduit in kitchen and pantry to be exposed.

PORTER'S ROOM: A 1-1/2" conduit runs from switchboard junction box to center lamp junction box in porter's room.

A 1/2" conduit runs from switchboard locker to a K-1 condulet with CC-5 receptacle for fan above wardrobe in porter's room.

From center lamp junction box a 3/4" conduit runs to upper berth lite J.B., from upper berth lite a 1/2" conduit runs thru box for CE-302 switch to lower berth lite and a 1/2" conduit runs to lower berth lite opposite end and reading lite in corner of dining room.

From center light junction box a 3/4" conduit shall run to locker, conduit hidden by special vertical moulding at transom.

A 3/4" conduit also to run in locker thru a T-217 condulet to an FS-23 condulet to house center lite, bracket light and fan switches.

From above T-217 condulet a 1/2" conduit runs into partition to feed channel for mirror light.

From switchboard locker a 3/4" conduit runs from center lite J.B. to a pressing iron receptacle in side finish under center window post.

SWITCHBOARD LOCKER: Lites in switchboard locker and regulator locker with CE-302 switch.

From switchboard locker three 1-1/2" conduit runs to a steel junction box in upper deck conduit covered by vertical moulding at transom. Box to feed all overhead circuits.

KITCHEN, HALLWAY & VESTIBULE: From junction box above switchboard locker two 3/4" conduit runs to junction box in side finish for 5-gang switch.

From switch junction box a 1/2" conduit runs thru hall lite junction boxes to a T-17 conduit in vestibule from which a 1/2" conduit runs to both vestibule lites.

DINING ROOM: From junction box in porter's room a 1-1-1/2" conduit runs to first center lamp junction box in dining room.

From this junction box a 1/2" conduit runs to deckrail on each side of car, thru two C-1 conduit to an E-1 conduit for deck rail lights (3) on each deck rail.)

From switchboard locker a 3/4" conduit runs to bracket fan on sideboard.

From first center lamp junction box a 1-1/4" conduit runs thru center lamp boxes in dining room, staterooms A, B and C and first center lamp junction box in observation room to second junction box in observation room.

From lower berth lite in dining room a 1/2" conduit runs thru all berth lites on stateroom side of car.

From second center lamp junction box in dining room, a 3/4" conduit runs to a junction box for L-124 lower berth lite.

PRIVATE ROOM "A": From junction box in room "A" a 1/2" conduit runs to channels in partition for wires supplying bracket at head of bed.

A 3/4" conduit runs from same box thru an T-27 conduit in bathroom to a T-27 which shall feed a 3/4" conduit in wardrobe in room "A". 3/4" conduit to feed a 3-gang switch box in mirror side of wardrobe.

From aisle side of the T-27 a 1/2" conduit leads to an FS-1 conduit near bathroom door, for bracket lite switch.

From the opposite side of the T-27 a 3/4" conduit runs to a T-27 conduit to feed R.H. mirror light in room "A".

From T-27 a 3/4" conduit runs thru a T-27 and thru steel mounting box for bathroom bracket, to an LB-17 conduit for L.H. mirror lite in room "A".

From the T-27 a 3/4" conduit runs to an LB-27 to feed fan in room "A".

PRIVATE ROOM "B": A 1/2" conduit runs from center lamp junction box to a T-17 conduit in bathroom from which a 1/2" conduit runs to an LB-17 conduit for each mirror lite in room "B". From center lamp junction box a 3/4" conduit runs thru a T-27 conduit in wardrobe to a T-27.

From the upper T-27 a 3/4" conduit runs to an LB-27 to feed fan.

From the last T-27 a 3/4" conduit runs to bracket fan; and another 3/4" conduit runs to a 3-gang switch box in mirror side of wardrobe.

From the lower T-27 wires to lead into channels in partition for mirror lite.

PRIVATE ROOM "C": From the box in deck of room "C" the conduit for fan and washstand light was installed same as in room "B".

For the mirror lights in room "C" a 1/2" conduit runs to channel and outlet for left hand mirror light, the wires continuing in channel behind mirror to outlet for R.H. light.

OBSERVATION HALLWAY: A 1/2" conduit runs from switchbox in hallway thru first hall light and to second lite.

OBSERVATION ROOM: From the first box in the observation room a 3/4" conduit runs to a 3-gang switch box in hallway.

From the last box in deck of observation room 3/4" conduit runs to a box in rear corner of observation room, hallway side, for reading light and to a box for platform light, track light and fan switches.

A 3/4" conduit runs from switch box to junction box in obs. hood.

A 1/2" conduit runs from switch box to a box for reading lite in panel between the windows on this side. From the last center lite junction box a 1" conduit runs to a junction box above observation platform ceiling sheet, from which junction box the following conduit leads. A 1/2" conduit to each platform lite. A 1/2" conduit to each marker lite receptacle and a 3/4" conduit to fan on body end finish, an continues to an E-27 conduit under car for future application of track lites.

A 1/2" conduit runs from berth lite box in room "G" thru reading lites in observation room opposite hallway side.

From the regulator cabinet a conduit per drawing passes thru the floor of car and LB-66 conduit to a T-646 conduit from the short hub of which a 1-1/4" conduit runs to a B-4 conduit, with 3 hole porcelain cover located within 36" of sill of kitchen end truck on the commutator side of the car sill, for outlet for dynamo lead.

From the other outlet of the T-646, a 1-1/4" conduit continues to a 3" x 6" x 8" cast iron junction box with cover and weatherproof gasket located near the forward end of battery box. From the side of this junction box a 1-1/4" conduit runs to within approximately 12" of the #1569 Anderson charging receptacle, the end of conduit provided with locknut and bushing, and properly sealed to exclude dirt and moisture. From the rear of the junction box two 3/4" conduits run to battery box, one to the forward and thru LB-22 conduit, entering box at front and top; the other 3/4" conduit runs to a battery fuse box as per drawing 15-D-479 located on rear end of battery box, continuing thru an LB-22 conduit into front and top of battery box. The battery fuse box contains one #9115, 101/200 ampere, 250 volt, S.P.D&W cutout fused with 125 ampere, 250 volt, enclosed N.E.C. fuse. The conduit entering battery box provided with locknuts and bushings, and properly sealed to prevent fumes entering.

A 3/4" conduit runs from regulator cabinet; thru floor of car to air compressor motor located beneath floor of car.

All conduit below securely fastened in such a way as to not interfere with removal or application of brake rigging, steam pipes, etc. and all condulets below floor of car provided with flanged covers and weatherproof gaskets. The conduit and wiring and annunciator conduit is shown on drawing 23-A-1484. Wiring between regulator and dynamo and regulator and battery is shown on drawing 23-F-1485.

104. TRAIN CONNECTORS: Oliver TLR-200 and TLP-220. Receptacle applied on one end of car only.

105. VOLTAGE: 32.

106. SWITCHBOARD: The switchboard is manufactured by the Crouse-Hinds Co. as per Santa Fe drawing No. 23-B-1487 and has the following mounted thereon; One 100 ampere, double pole knife switch fused with open link fuses for trainline; one 100 ampere, double pole, knife switch fused with open link fuses for main lighting switch; eight two-wire circuits with Edison plug cutouts and Crouse-Hinds push button switches. One circuit at bottom of switchboard, fused but without switch control. Two two-wire circuits connected to battery independent of lamp regulator each with Edison plug cut-out and Crouse-Hinds 20 ampere double pole push button switch to control air compressor and pressing iron. One two-wire circuit with Edison plug cutout for dynamo indicating lamp. The circuits are marked as per drawing 23-B-1487 and fused with 15 ampere 125 volt Edison plug fuses, except the pressing iron circuit which is fused at 25 amperes.

Switches controlling vestibule, center, hallway, private rooms, dining room, porter's room, kitchen and pantry lights, and fans in kitchen and porter's room are GE No. 1688 S.P. flush tumbler, fans in private rooms, dining and observation rooms are GE No. 60479. Marker outlets have No. 5547 Hubbell flush receptacles, and pressing iron has No. 5552 20 ampere Hubbell flush receptacle and GE No. 630 20 ampere flush switch, tumbler type.

CABINETS: The switchboard and regulator are placed in unlined steel cabinets with self-closing doors, closing against a rabbitt. The cabinet door lock is fitted with standard Santa Fe coach key. The door provided with six 1-1/4" ventilating holes at the top and the same number at the bottom. The cabinet is made of steel.

107. GAS TANKS: None.

108. LAMP BULBS: Furnished by Railway Co. after receipt of cars.

109. CENTER LAMPS: The eight (8) center fixtures on circuits #2 and #3, are Safety Co's. #19129 with 12" Berylite bowl. The four (4) hallway fixtures to Safety Co's. #19333 with #53213 shades. All finished SB#7-A.

110. BRACKET LAMPS: 13 Safety #9686 with Safety Co's. #3797 alba shades. 2 in each stateroom, six in dining room and 1 in porter's section.

6 Safety #19515 with #3797 shades, one above desk in dining room, one above bed in room A and one above washstands in room "B" and "C", one above dresser in toilet room and one above section table in stateroom "C". All finished SB#7-A.

The eleven (11) berth fixtures are Pullman No. L-124 located as follows:

Five (5) in observation room.

Two (2) in stateroom "B".

One (1) in stateroom "C"

Two (2) in porter's room

One in dining room.

Finished SB#7-A and take a 25 watt G-18-1/2 frosted bulb.

The three (3) upper berth lamps are Pullman No. L-173 located one (1) each in stateroom "B", "C" and porter's room.

These lamps take 25 watt A-19 bulb and are enameled to match finish and provided with No. CE-302 automatic door switch to open circuit when berth is closed.

Kitchen and pantry lights equipped with "J" condulets, with No. CC-227 Norbitt receptacles.

Light in switchboard cabinet is #9402 Edison cleat receptacle controlled by CE-302 automatic door switch.

Dynamo indicating lamp #60019 GE wall socket.

111. VESTIBULE OR PLATFORM LAMPS: Four Crouse-Hinds vestibule lamps per Ry. drawing 15-D-788. Two on observation platform and two in vestibule.

112. FANS: Five (5) fans located in dining, observation and private rooms are 12" 32 volt 3 speed GE #257521 bracket type with standard base, finished to match finish of rooms on body and base and #7-B statuary bronze on blades and guards and are controlled individually by Rotary flush switch No. GE-60479.

One (1) fan in porter's room same as above except that it runs at one speed only. #257518 type. All of the fans equipped with G.E. Co's. special bronze bearings and removable armature shafts. No fan provided in kitchen unless especially desired by occupant of car.

All fans purchased from C.S.G.E.S. Co.

113. CURLING IRON HEATERS: None.

compressor complete including automatic cut off and Westinghouse #2097
pressure gauge.

115. PLATFORMS, TYPE: Railway standard, per drawings.
116. PLATFORMS, BUFFER BEAM OR EXTENSION: Cast steel per drawing. Side step chafing plates per Railway drawings.
117. PLATFORMS, DISTANCE END SILL TO BUFFER BEAM: 2'9".
118. PLATFORMS, SAFETY CHAINS: Santa Fe standard per drawing.
119. PLATFORMS, FLOOR COVERING: Observation and kitchen platforms Santa Fe standard tiling 1-1/2" inlaid red and green squares 3/16" on trap doors 5/16" on vestibule and observation platforms. U.S. Rubber Co. make, cemented down with Wood's cement purchased from G.E. Woods, Great Northern Building, Chicago, Ill.
Also foot mats rubber 5/16" thick, solid green on top of buffer at both ends of car. Mastic composition on buffer wings.
120. OBSERVATION PLATFORMS, TYPE: Railway latest standard.
121. OBSERVATION RAILINGS & GATES: Grab handles, top railing and knobs brass; balance iron, all painted black.
122. OBSERVATION DOME: None.
123. OBSERVATION AWNING: Santa Fe standard made of Pantasote double face color 74-74, grain Morocco, per drawing 16-A-737.
124. OBSERVATION FINISH: Per drawings.
125. OBSERVATION WHISTLE: One whistle Crane #600, size 1-1/2" on observation platform per drawing.
126. STEPS: Both ends have steel step with curved sides, trimmings enameled with 4 Kass treads all as shown on drawing 15-A-1055.
127. STEP ORNAMENTS OR NOSINGS: Steel side ornaments 3/8" pipe trimming enameled.
128. STEP TREAD COVERING: See paragraph #126.
129. DRAWBAR: Cast steel long couplers with A.R.A. "D" head per drawing #06766B. American Steel Foundries make. Coupler yokes A.S.F. make.
130. DRAWBAR CENTERING DEVICE: Santa Fe standard per drawing 15-A-912.
131. HEIGHT, RAIL TO CENTER OF DRAWBARS: 35".
132. UNCOUPLING DEVICE: Steel rod 1" diameter with malleable iron brackets.
133. DRAFT GEAR: Miner friction gear Class A-5-X.
134. DRAFT LUGS: With draft gear from Miner Co. cast steel pattern CS-494.
135. BUFFING DEVICE: Miner friction gear Class B-10-X applied in cast steel housing pattern CS-230 per drawing.
136. VESTIBULE, TYPE: Railway latest standard steel construction, per drawing kitchen end only. Latest standard Fowler upper buffer mechanism. Door between diaphragm posts per plan.
137. VESTIBULE INSIDE FINISH: None.

138. VESTIBULE DOORS: One at kitchen end only made of steel, in two parts to open over platform.
139. VESTIBULE DOOR GLASS: 1/4" American Polished Plate, size 22-1/4" x 24".
140. VESTIBULE SASH: None.
141. VESTIBULE SASH GLASS: None.
142. VESTIBULE DIAPHRAGM: One Curtain Supply Co's. Rex 2-fold "U" shaped sloping top sectional diaphragm per drawing.
143. VESTIBULE DIAPHRAGM ATTACHMENTS: The Curtain Supply Co's. make.
144. VESTIBULE DIAPHRAGM HOODS: None.
145. VESTIBULE CURTAIN & ROLLERS: Per drawing 16-S-2009 sheet 1.
Curtain made of double faced Pantasote, color 74-74 Morocco grain, Holland cloth next to roller. 1-1/4" Rex curtain roller per drawing 16-S-2009 sheet 11.
146. VESTIBULE CURTAIN SHIELDS: Ry. Std. Rex opening shield per drawing.
147. VESTIBULE CURTAIN HOOK & HANDLE: Vestibule curtain handle Curtain Supply Co's. #5 steel per shop card 13008. Vestibule curtain hook Curtain Supply Co's. #6-A with steel roller and steel pin per shop card 11813.
148. VESTIBULE TAIL GATE: None.
149. VESTIBULE TRIMMINGS: #6 bright brass.
150. VESTIBULE GRAB HANDLES: Railway standard wrot iron. Two side door and one step grab handle per drawing.
151. TRAP DOOR & LIFTING DEVICE, TYPE: National, steel with 3/16" thick rubber tiling. Trap doors held when raised. Vestibule trap door per drawing 15-B-1061.
Observation trap door per drawing 15-B-1094 and parts listed thereon.
Vestibule trap door lock Tuco #13 per drawing 15-B-648.
Observation trap door lock Tuco #4 per drawing 23-D-1160.
152. TRAP DOOR LIFTING DEVICE, MAKE: Tuco's National per drawing.
153. BRAKES: Westinghouse with American slack adjuster. "J", also 1-1/4" dirt collector.
Special listed Air brake fittings used throughout as listed on drawing.
Train line 1-1/4" extra heavy.
All air brake and air signal pipes steel.
Brake rigging per drawing.
Pipe from slack adjuster to cylinder body 1/4" copper pipe iron size bent for flexibility.
154. BRAKE SCHEDULE: UCB-2-14.
155. BRAKE SYSTEM: Per drawings. Including reducing bushings #2178.
156. BRAKE POWER & PRESSURE: 90% light weight of car. Cylinder pressure 60#, per square inch.

- Sheet #2
157. CONDUCTOR'S VALVE: Two Westinghouse type B-3-A #51497 located one each end of car.
158. HAND BRAKES: Lindstrom Malleable Iron with exposed ratchet National Brake Co's. Peacock gear below platform with solid brass bushing per shop card 11925. To both ends of car.
159. RETAINING VALVE: One Westinghouse #58813 with handle on inside and outside of car.
160. AIR SIGNAL: Two Westinghouse schedule "K", one valve at each end of car discharge valve applied on observation platform railing, per Railway drawing.
161. BRAKE & SIGNAL CORDS & HANGERS: Signal cord white and brake cord red wire center. Hangers per shop card 12071.
162. AIR GAUGE: One Westinghouse No. 23338 3-1/2" Duplex Air Gauge located in observation room as shown on drawings.
Also one Westinghouse No. 20976 3-1/4" Inspector's test gauge located in porter's room connected to air pressure water system.
163. SPEED RECORDERS: One Weston Electric speed recorder, (Westburg Engineering Co's. make). Type 4 Magneto, model 44, enclosed in cast iron case and equipped with correct size pulley to work with 7" axle pulley. Sealed driven with coil spring belt.
One Weston No. 271 Car indicator, calibrated from zero to 90 miles per hour, for mounting in panel.
One Rheostat and necessary fittings for installing above equipment.
Above equipment from Westburg Engineering Co., 53 West Jackson Blvd., Chicago, Ill.
A small double throw knife switch, (such as is used on radio apparatus) applied to be thrown whenever the car is run backwards. This switch is used to reverse the connections on the instrument.
164. CLOCKS: One in porter's room. See para. #205.
165. SUPPLY OR EQUIPMENT BOXES: One coal box below vestibule kitchen end.
One tool box, see paragraph #78.
166. PAINTING, BODY: UNDERFRAME & STEEL SUPERFRAME: All lap joints and joints throughout the entire car where metal is placed against metal and all parts coming in contact which cannot be painted after assembling to be given one heavy coat of approved No. 1 car cement.
After assembling and before applying wood nailing strips, all parts of steel underframe thoroughly cleaned with sandblast and parts that cannot be reached with sand blast were cleaned with wire brush and wiped with waste saturated with benzine. After sandblasting and before any rust sets in, entire underframe and inside of body, after outside sheathing was applied, given priming coat of Detroit Graphite Co's. Inhibitive Brown Primer.
The second coat, No. 2 and finish coat No. 3 standard paint.
Outside face of side sills below sheathing and end sills are not coated with cement but given same treatment, as exterior of car. Floor nailing stringers painted with mineral paint before they are applied.
Both sides 1/8" lower floor galvanized steel, coated with two coats of standard No. 3 paint.
After the floor insulation had been applied the entire top surface, including floor stringers, was coated with one heavy coat of petroleum asphaltum, 1/8" thick.
FLOORS: All floors painted with two good coats of heavy paint before applied to car and laid in sub-lime white lead and painted three coats of Railway standard color after it was applied in car.

Entire car sandblasted in an approved manner.
1st day: Sandblasted and applied one coat of Santa Fe regular primer.
3rd day: Applied second coating.
4th day: Puttied and knifed with knifing surfacer.
5th day: First coat rough stuff coating.
6th day: Second coat rough stuff to obtain desired surface.
7th day: Sandpaper with wet or dry sandpaper No. 90; finished with No. 120.
8th day: Applied sealer coat.
9th day: Applied Pullman color high-gloss Railway body coating.
10th day: Lettered with gold leaf.
11th day: First coat of wearing body varnish.
13th day: Second coat of wearing body varnish.

INTERIOR STEEL FINISH: Entire inside of car sandblasted before painting.

All steel finish received baking primer and baked on before receiving the succeeding coats.

INTERIOR STEEL FINISH: Ceiling painted Duco lacquer system with color as per approved paper panel sample.

The system for finishing of Duco as follows:

- 1st operation - Cleaned all steel thoroughly and primed with an even coat of DuPont Railway Interior primer for Duco. Dried 48 hours.
- 2nd operation - Puttied and glazed as was necessary being DuPont hard putty for Duco and DuPont glazing composition for Duco. Dried 24 hrs.
- 3rd operation - Cleaned and second glazed. Dried 24 hours.
- 4th operation - 1 coat of DuPont paint type undercoater for Duco (same shade as finish Duco coat).
- 5th operation - Applied by spray 1st coat of DuPont Duco thinned to spraying consistency with Duco thinner. Dried 3 hours.
- 6th operation - Applied second coat same.
- 7th operation - Applied third coat same.

Balance of interior in plain colors with necessary striping for ornamentation.

Interior color scheme per sample panel approved except that window capping was painted same color as pier panels.

Proper time was allowed in all cases.

PRIVATE ROOMS "A", "B" AND "C": Painted per approved sample panel identified as #11428.

Kitchen, pantry and servant's section painted Duco lacquer of the same shade of green as applied in dining cars of Lot 6118. For system of Duco finish see above.

TOILET ROOMS: Interior finish painted Duco lacquer system, white. For system of Duco finish see above.

HEATER PIPES: Steam pipes painted two coats of Tuscan red enamel.

IRON WORK: All iron work such as uncoupling connections, chains, end of grab irons, brake rods, brackets, etc., given one coat of standard No. 3 ready mixed paint.

STEPS: Inside surface of steps finished same as trucks. Back of steps, underside of treads, and back of risers have one coat standard No. 3 ready mixed paint.

All surfaces primed with inhibitive brown primer.

BATTERY BOX: All wood interior exposed to acid impregnated with parafine by two dip process.

Exterior surfaces finished to conform with the exterior finish of car body and underframe.

166. PAINTING, BODY: (CONT'D.)

VARNISH & UNDER COAT: Furnished by Murphy Varnish Co's. in 5-gallon cans and contents of can clearly marked on outside.

CEMENT & PAINT: No. 1 car cement and No's. 2 and 3 standard paint, furnished as ordered by the General Purchasing Agent.

MISCELLANEOUS: All painting and varnishing done in shops with temperature not lower than 70 degrees F. All shop doors kept closed while varnishing was being done and until varnish was dry. No painting or varnishing was allowed in camp shops.

INSPECTION: All material applied in practical and workmanlike manner to the entire satisfaction of the Railroad Company's inspectors.

167. PAINTING, SASH: Exterior surface of inside and outside sash painted similar to body of car. The interior surface of the inside and outside sash stained and finished to match finish of car and given three coats of varnish.

VESTIBULES: Finished same as body of car.

All vestibule trimmings enameled body color, enamel baked on.

168. PAINTING, ROOF: UPPER & LOWER DECK: Cleaned thoroughly then applied coat of Lucas No. 1 car cement.

169. PAINTING, PLATFORM: Finished same as trucks.

Back of steps, under treads and back of risers have one coat of Lucas car roof cement.

IRON WORK: All such portions of exterior iron work as are in plain view, i.e. uncoupling connections, chains, end sill grab iron, given two coats hand rail black.

All such iron work, such as brake rods, and brackets, etc. under car given two coats carbon black.

170. PAINTING, INSIDE VESTIBULES: Finished same as body of car.

171. PAINTING, OBSERVATION END: Finished same as body of car.

172. VARNISH, OUTSIDE: Murphy.

173. VARNISH, INSIDE: Murphy.

174. OUTSIDE DECORATION: None.

175. LETTERING: Gold leaf "Santa Fe" on letterboard. Number of car stenciled over truck centers, all as shown on drawing furnished.

The word "BUSINESS" in usual location on end doors as well as on the screen doors and diaphragm doors.

176. NUMBERS OR NAMES: 9 and 10.

177. ROYALTIES: Hanson berth fixtures.

178. TRUCKS: Commonwealth 6 wheel cast steel with 5-1/2" x 10" journals and cast steel frames with pedestals cast integral. Santa Fe standard suspension bars for dynamo as detailed on drawing. Grip nuts applied to all truck bolts.

TRUCK FRAMES: Cast steel, pattern C.S. 593 per drawing. Pedestal cast integral with truck frame. Wearing plates at pedestals riveted on with 3/4" rivets. Rubbing plates for bolsters bolted on with 3/4" countersunk bolts.

TRUCK BOLSTERS: Cast steel, pattern C.S. 405 with hard steel rubbing plates riveted on with 3/4" countersunk rivets, all as shown on drawing. Material, steel per specification CL-9-A.

TRUCK CENTER BOLSTER: Cast steel, pattern C.S. 481 per drawing and material specification CL-9-A.

178. TRUCKS: (CONT'D.)

SIDE BEARING ARCH: Cast steel, pattern C.S. 407 per drawing and per material specification CL-9-A. A shim of proper thickness placed between arch and truck bolster so as to give 1/8" clearance between body and truck side bearing.

SPRING PLANK: Cast steel, pattern C.S. 164 per drawing and per material specification CL-9-A.

EQUALIZER SPRING SEAT: Cast steel, pattern C.S. 519 per drawing and material specification CL-9-A.

179. WHEEL BASE: 11'0".

180. GAUGE: 4'8-1/2".

181. CENTER BEARINGS: Cast steel suiting Miner locking pin.

182. CENTER PLATES: Cast steel, pattern C.S. 481, to suit Miner locking center pin. Castings were smooth and true to dimensions and passed gauges. For contour and gauges, see drawings. Material per specification CL-9-A. Center pins Miner's interlocking as shown on drawing.

183. SIDE BEARINGS: Malleable iron housing, pattern CM-2631 with hardened steel roller and spring centering device. Barber roller side bearings #12 all per drawing. Secured to side bearing arch with three 1/2" square head bolts. Standard Car Truck Co's. make.

184. EQUALIZERS: O.H.S. per Railway drawing and per material specification CL-8-B Class "C".

185. WHEELS: 37" Railway standard, rolled steel per Railway drawing. Markings per Railway drawing. Wheels pressed on axles with a pressure of not less than 65 tons nor more than 85 tons. Standard Steel Works make. Wheels were in accordance with specifications No. CL-14-B.

186. TIRES OR RIMS: Steel, width 5-1/2" diameter 3".

187. AXLES: A.R.A. standard, with 5-1/2" x 10" journals as shown on Railway shop card #10119. Axles rough turned all over except collars; journals swaged. Material per specification CL-12.

188. AXLE DIMENSIONS: 5-1/2" x 10".

189. EQUALIZER SPRINGS: Observation end both sides, Railway #606. Kitchen end both sides, Railway #608. A.S.F. make.

190. BOLSTER SPRINGS: Observation end, both sides, Railway, #531. Kitchen end, kitchen side, Railway #530. Kitchen end, hall side Railway #520. A.S.F. make.

191. PEDESTALS: Cast integral with truck frame.

192. JOURNAL BOXES: Symington complete with lids, pattern C-1276 per drawing. Boxes equipped with equalizer seat inserts. Boxes packed with waste spring packing National Waste Co's. make and standard of Indiana lubricating oil.

193. JOURNAL BOX LIDS: Symington pattern CM-2226 per drawing and per material specification G-3.

194. DUST GUARDS: Chaton Fibre 5-1/2" x 10" per drawing.

195. JOURNAL BEARINGS: 5-1/2" x 10" from Magnus Co., pattern No. 5, per material specification CL-27.
196. JOURNAL BEARING KEYS: Drop forged per Railway shop card and material specification CL-8-B Class "B".
197. TRUCK BRAKES: Simplex clasp brakes from American Steel Foundries.
198. BRAKE BEAMS: American Steel Foundry Co's. make, furnished with clasp brake shoes.
199. BRAKE HEADS: With brake beams.
200. BRAKE SHOES: Pattern C-1053 from American Brake Shoe & Foundry Co. Diamond "SU" per drawing and material specification CL-26.
201. WHEEL NUMBERS: Manufacturers only. The markings for the wheels as shown on Railway drawing. Place and date of application stenciled in one inch (1") letters as near to the lower edge as possible on the inside face of the rim.
202. AXLE NUMBERS: None.
203. PAINTING, TRUCKS: Priming coat of Detroit Graphite Co's. inhibitive brown primer. Interior one coat of approved #3 car cement. Exterior two coats of standard body color. Size of journals (5-1/2" x 10") stencilled on each side of truck with white stencil paint in 1" figures under the word "Journal" as shown on drawing. Car numbers stencilled on inside end of each truck frame with white stencil paint in 2" figures. Journal numbers on truck sides have even numbers on one side and odd numbers on opposite side. Stenciling done with white stencil paint in 1" figures, per Railway drawing.
204. GENERAL REMARKS: Safety appliances meet I.C.C. requirements. All plates and bars 3/8" thick and less are copper bearing steel. Santa Fe ownership plates malleable iron per drawing 16-F-198. Brass angle coping applied to end windows, observation end. Window guards applied to observation end windows inside and outside, also to windows in passageway.
 The MB-400 weatherstrip secured with #18 - 5/8" nails spaced about 2" apart.
 Material, steel, per specification G-4-C.
 All rivets fill holes and were riveted with power jaw riveter where possible. Whenever power jaw riveter could not be used, pneumatic hand riveter was used.
 Rivets have standard heads per shop cards 10922 and 11278.
 All rivet holes in body bolster, crossties, draft rigging, gusset plates, etc. punched 1/8" smaller than required diameter. And then reamed after parts are in place to not more than 1/16" larger than diameter of rivets. All lumber used in the construction of this car thoroughly kiln dried and free from sap, knots, wind shakes and other imperfections, and finished to sizes shown on drawings.
205. MATERIALS FURNISHED BY RAILWAY COMPANY F.O.B. PULLMAN CAR WORKS:
 Roof ventilator.
206. MATERIALS FURNISHED & APPLIED BY RY. CO. AFTER RECEIPT OF CARS:
 Kitchen and pantry equipment.
 Table linen.
 Sleeping linen
 Silverware
 China
 Lamp bulbs
 Glassware
 Clock
 Marker lamps, complete
 Waste paper baskets.
207. MATERIAL PURCHASED FROM RAILWAY COMPANY: None.

208. RAILWAY MATERIAL SPECIFICATIONS:

Bars, carbon steel, Class B.....	CL-16
Axles, carbon steel.....	CL-12
Black and galvanized sheets.....	C-21-C
Bolts and nuts.....	C-48
Brake pins.....	CL-47
Coupler knuckle pivot pins.....	CL-22-A
Couplers, Simplex.....	C-24-A
Hardwood, oak, mahogany, etc.....	C-72
Hose, air brake and train signal.....	CL-29-A
Journal bearings.....	CL-27
Oil, linseed, boiled.....	CL-38
Oil, linseed, raw.....	CL-39
Paint, black.....	C-32-B
Petroleum, asphaltum.....	C-40
Pipe, steel.....	CL-46-C
Springs, elliptical.....	CL-18
Springs, helical.....	CL-17
Steel bars, carbon for Railway springs.....	CL-16
Steel castings.....	CL-9-A
Steel forgings, medium.....	CL-8-A
Tin plates.....	C-58
Wheels, rolled steel.....	CL-14-B
White lead.....	C-34
Rivets and rivet steel.....	G-4-C
Steel forgings, mild.....	CL-8-B
Chain.....	G-25
Iron bars wrought.....	G-1
Mall. iron castings.....	G-3
Structural steel, shapes, plates, sheets, bars and rivets.....	G-4-C
Insulite insulation.....	C-49
Hairfelt insulation.....	C-50
Brake shoes.....	CL-2
Plates, center drop forged steel.....	C-42

209. INSPECTION: Axles, chain, steel and iron were not used without test in accordance with specifications referred to in the foregoing such test was made by the Railway Company's inspector, unless otherwise agreed.

Steel castings, springs, journal bearings, rivets, brake jaw pins and glass were passed upon by Railway Company's representative.

Contractors gave the Engineer of Car Construction two copies and the General Material Inspector two copies of all orders for material for these cars, and notified the General Material Inspector when material was ready for inspection; also notified the Engineer of Car Construction when material for the cars commenced to arrive, and ample notice when actual work on the cars began in order to allow the Railway Co's. inspector ample time to arrive at the place of construction.

210. DRAWINGS: Follow.

Weights.

Body	123,300 lbs.
Trucks	51,200 lbs.
Total	174,500 lbs.

Kitchen end 93,400 lbs.

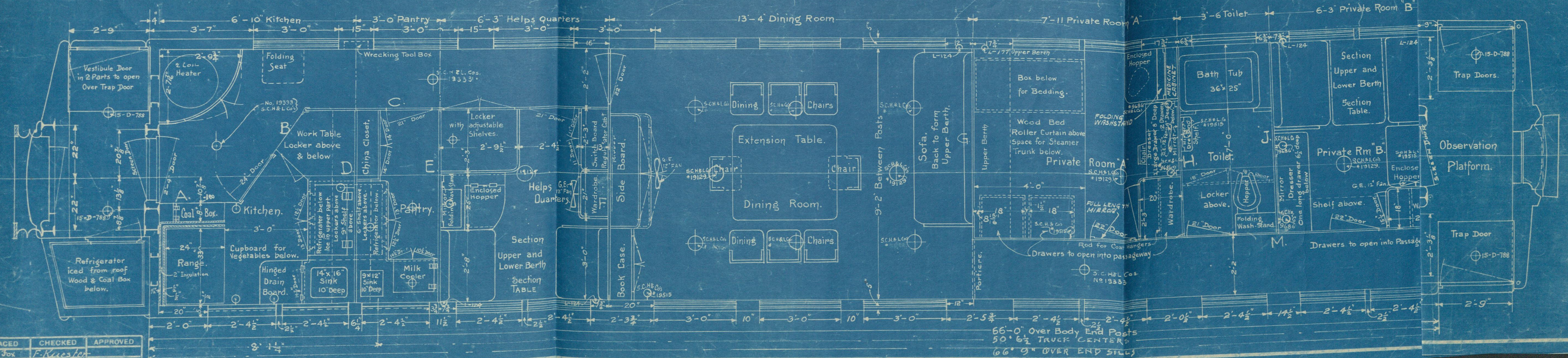
LOT	OWNER	EQUIPMENT
6113.	Santa Fe.	2 Business Cars

REISS. B ON ACC. RELOCATING LAMPS IN PASSAGE WAY 10-20-27-DIV.
 REISS. C 1/2 CHANGING DRAWERS UNDER BED IN ROOM "A" & SHOWING HEATER ROOM DOORS 11-10-27-BM
 REISS. D 1/2 ADDING MEDICINE CABINET & MIRROR TO ENTRANCE DOOR IN ROOM "A" E.P. 3-12-28
 REISS. E 1/2 CHANGING SIZE & TYPE OF TABLE IN OBSERVATION ROOM & ADDING TABLE IN ROOM "C" R.P. 4-4-28

BUSINESS CAR FLOOR PLAN No 7146.

PULLMAN CAR & MANUFACTURING CO.
 PULLMAN CHICAGO

52	-B-	91	TRACING No.
	E		ISSUE



DRAWN	& TRACED	CHECKED	APPROVED
M. Fox	F. Kuester		
7-20-27	7-26-27		

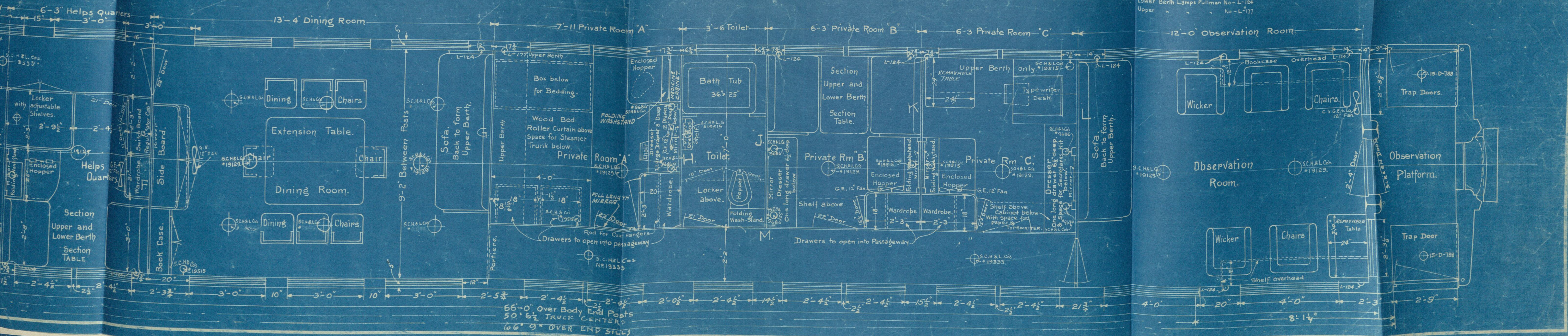
66'-0" Over Body End Posts
 50'-6 1/2" TRUCK CENTERS
 66'-9" OVER END SILL

PAGE WAY 10-20-27-DIV.3
 D IN ROOM "A" & SHOWING HEATER ROOM DOORS 11-10-27-BM
 REPAIR TO ENTRANCE DOOR IN ROOM "A" B.P. 3-12-28
 REPAIR TO ROOM & ADDING TABLE IN ROOM "C" R.P. 4-4-28

BUSINESS CAR FLOOR PLAN No 7146.

PULLMAN CAR & MANUFACTURING CORPORATION
 PULLMAN CAR WORKS
 CHICAGO

52	B	91	TRACING No.
	E		ISSUE



66'-0" Over Body End Posts
 50'-6 1/2" TRUCK CENTERS
 66'-9" OVER END SILL